

USDA FAMILY FOOD PLANS, 1983  
LOW-COST, MODERATE-COST, AND LIBERAL

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## SUMMARY

Three USDA family food plans--low-cost, moderate-cost, and liberal--have been revised. The 1983 revision incorporates new research-based information on consumption, prices, and nutrient composition of foods and on human nutritional requirements. The revised plans are at the same general level of cost as the 1974-75 food plans they replace.

The food plans are made up of different types of foods (food groups) that households might buy, or obtain from other sources, to provide nutritious meals and snacks for household members. In the plans, quantities of food groups are suggested for men, women, and children of different ages (tables 1-3). A plan for any household can be determined by totaling quantities of foods suggested for persons of the sex and age of household members.

USDA believes that the food plan that is least disruptive to food practices will be most acceptable. Therefore, in developing the plans, average quantities for food groups used by households as reported in a nationwide food consumption survey were changed only as necessary to provide nutritious diets and meet cost constraints. The 1983 food plans generally contain more grain products, legumes, and vegetables and fruits, and less cheese, eggs, fats and oils, sugar and sweets, and soft drinks, punches, and ades than survey households reported on the average.

The 1983 food plans are superior to the 1974-75 plans in several respects. They are based on the most recent information on food composition, food consumption, food prices, and nutritional requirements. They assure, insofar as can be determined with available food composition data, sufficient levels of several nutrients not considered in the 1974-75 food plan development. In addition, they control fat, cholesterol, caloric sweeteners, and sodium at moderate levels.

USDA FAMILY FOOD PLANS, 1983<sup>1</sup>  
LOW-COST, MODERATE-COST, AND LIBERAL

The three USDA family food plans presented in this report--low-cost, moderate-cost, and liberal--were developed by the Human Nutrition Information Service (HNIS) of the U.S. Department of Agriculture. A less costly food plan--the thrifty food plan--is presented in a separate report. The 1983 food plans replace food plans which were developed in 1974-75. The estimated cost of the food plans, released by the Department each month, will be based on the revised plans starting with the April 1983 estimates.

Information about the new food plans is presented here in three parts: (1) the family food plans--what they are and why they were revised, (2) the development of the plans, and (3) the estimated costs for the plans.

I. The Family Food Plans, 1983

What are the family food plans?

The food plans are amounts of foods of different types (food groups) that households can use to provide nutritious diets for family members at different levels of cost. At each cost level, amounts of foods for men, women, and children of different ages are suggested. Quantities of 31 food groups for 11 sex-age categories are shown in tables 1-3 for the low-cost, moderate-cost, and liberal food plans respectively. These quantities can be totaled for household members to determine the food plan for any household. Food costs for a household following one of the food plans can be estimated from costs for the plan which are released monthly by HNIS (table 4).

Why were the family food plans revised?

The Department has prepared guides for selecting nutritious diets at different levels of cost for almost 50 years. Such guides, or food plans, are revised from time to time to take into account new information about nutritional needs, nutritive values of foods, food consumption, and food prices.

Quantities of food groups in the food plans at four levels of cost--thrifty, low-cost, moderate-cost, and liberal--were last revised in 1974-75 (1,2). The 1974-75 revision of the plans was based on the Recommended Dietary Allowances (RDA) released in 1974 by the National Academy of Sciences-National Research Council (NAS-NRC) and food consumption data from a nationwide food consumption survey conducted by USDA in 1965-66.

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The food plans were revised in 1983 for several reasons:

- o Dietary standards used in the 1974-75 food plans needed revision. In 1980, the NAS-NRC revised the RDA (3). Recommended amounts of ascorbic acid, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, thiamin, riboflavin, phosphorus, and magnesium were changed for some sex-age categories. The major changes were increases in ascorbic acid for all categories and in vitamin B<sub>6</sub> for some categories. The 1980 RDA were used to define the lower limit for nutrients and the level of food energy in the plans. (See page 4.) Also fat, cholesterol, caloric sweeteners, and sodium were controlled at moderate levels in the 1983 food plans. Of these dietary factors, only fat was controlled in the earlier plans, although attempts were made to control the level of cholesterol by limiting the number of eggs and to control the level of sweeteners by limiting the amount of sugar and sweets in the 1974-75 food plans.
- o New information on the content of nutrients in foods has become available since 1974-75. Also the nutritive values of some foods have changed since 1974-75. For example, the enrichment levels of certain B vitamins in bread and flour were increased in 1975. The most recent food composition data available in HNIS's Nutrient Data Bank were used to estimate the nutrient content of foods in the food plans. Levels of food energy, fat, protein, calcium, iron, magnesium, vitamin A value, thiamin, riboflavin, niacin, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, and ascorbic acid were estimated for the earlier plans; in addition, levels of zinc, phosphorus, folacin, vitamin E, cholesterol, caloric sweeteners, and sodium were estimated for the 1983 plans.
- o More recent information on food eaten by men, women, and children of different ages on a nationwide basis became available from USDA's Nationwide Food Consumption Survey 1977-78 (NFCS). This survey also provided detailed information on the quantities and money value of food used (purchased, home-produced, or received as gift or pay) by the total household. Survey data were used to estimate the quantities of foods used to prepare meals and snacks for men, women, and children of different ages. These quantities of foods made up the food consumption patterns which were used as starting points in developing the new plans. (See page 7.) Quantities were specified for 31 food groups, an increase from the 17 groups in the earlier plans. The number of food groups was increased to group foods with high and low content of certain dietary components not considered in the 1974-75 food plans and to help deal with the increased use of commercially prepared foods.
- o Shifts have occurred in food prices between 1974-75 and 1983. Prices for most foods increased, but some increased more than others. Prices paid by survey households in 1977-78, updated to 1981 levels, were used in revising the plans.
- o Food plans for older adults were developed for individuals 51 years and over instead of the 55 years and over grouping used in the earlier plans to be consistent with the RDA age groupings. Food plans for the infant and for pregnant and nursing women were discontinued in 1983.

## II. Development of the Family Food Plans, 1983

### Procedures in brief

Procedures for revision of the food plans are summarized below:

1. The mathematical model used for the 1974-75 food plans was adapted for use in developing the 1983 food plans.
2. The groups of households from the 1977-78 NFCS to be used as the basis for the food consumption patterns, the nutritive values per pound of food group, and the base food prices were selected.
3. The dietary standards for the plan were determined.
4. The levels of household discard of edible food were specified.
5. The sex-age categories were defined.
6. Food groups for which quantities in the plan were to be specified were defined.
7. The nutritive value per pound of each food group was calculated for each plan assuming selections of items within groups based on average consumption of the selected survey households.
8. Prices reported by the selected survey households in 1977-78 were updated to January 1981 levels and the average price per pound of each food group was calculated assuming selection of items within food groups based on average consumption of households.
9. Food consumption patterns in terms of quantities of food groups (as purchased) for the sex-age categories were derived from survey data for households and household members.
10. The nutritive value of food in consumption patterns was calculated and compared to the dietary standards.
11. Upper and lower limits on quantities of each food group allowed in the plan for each sex-age category were defined.
12. Costs for the food plans for the sex-age categories were specified.
13. The mathematical model was used to develop the revised food plans to meet the dietary standards, cost specifications, and food group quantity limits.

### The mathematical model

In developing the 1983 food plans, the quadratic programming model used in developing the 1974-75 food plans (2) was adapted to accommodate additional food groups and dietary substances. The adapted model selects the optimum plan for each sex-age category--the quantities of 31 food groups that represent as

little change from the quantities of the food groups used (food consumption pattern) as necessary to meet specifications. Specifications were set for the nutrient content and cost of the total plan and for quantities for each of the food groups.

"Change" was measured in terms of weighted squared deviations from the amount of food groups in the consumption pattern, and total change was minimized. The weights were set to cause deviations to be minimized on the basis of the percentage change rather than change in pounds of food groups. The weighting of squared deviations results in small changes in amounts of several food groups, rather than a large change in one group to meet specifications.

#### Survey households as basis for plans

Data from the basic sample of the NFCS, which was conducted from April 1977 through March 1978, were used as the basis for food consumption patterns and base food prices. Data included quantities and prices (or costs) of foods used by the household during the week prior to the household interview and the food intake of household members the day before, the day of, and the day following the interview.

Data were collected for over 14,000 housekeeping households. From these households, three separate samples were selected based on the money value of food used by the household per person in a week. Households were first put in order on this basis. Those with food costs from \$13.00 to \$16.99 per person per week in 1977-78 were used as the basis for food consumption patterns for the low-cost plan; those with food costs from \$17.00 to \$20.99 were used for the moderate-cost plan; and those with food costs of \$21.00 and over were used for the liberal plan. This sorting system was used to separate households into approximately the 2nd, 3rd, and 4th quartiles on a distribution of money value of food used per person in a week.

#### Dietary standards

Dietary standards for the food plans were determined after extensive study of the dietary change required to meet various sets of standards (4-6). The standards and the rationale for their use are discussed elsewhere (6). Briefly, the standards are as follows:

Energy.--Midpoint of the 1980 RDA range.

Fat, cholesterol, caloric sweeteners, and sodium.--Amounts of these substances were limited to moderate levels:

Fat.--35 percent of energy or less.

Cholesterol.--350 milligrams per day or less.

Caloric sweeteners.--12 percent of energy or less.

Sodium.--1,600 milligrams of sodium per 1,000 kilocalories or less.

Protein, vitamins, and minerals.--At least the 1980 RDA level with these exceptions:



Vitamin B<sub>6</sub>.--A ratio of 0.02 milligrams of vitamin B<sub>6</sub> per gram of protein--the basis for the RDA--was used rather than the RDA itself. The RDA for vitamin B<sub>6</sub> assumes protein intakes for adults well above protein RDA levels and levels in the food plans.

Iron.--For the child 1 to 2 years, at least 90 percent of the RDA is required from the food plan itself. Cereal fortified with iron is recommended as a source of the remaining 10 percent of the RDA.

Zinc.--A standard of 80 percent or more of the RDA was used. The full RDA was not used because the U.S. food supply does not provide sufficient zinc to meet RDA levels for the entire population.

Folacin and vitamin E.--Food composition data for these nutrients are notably insufficient and/or unreliable. However, the composition data available were used to estimate the content of the food plans and attempts were made to develop food plans to provide goals of 80 percent RDA or more for folacin and vitamin E.

Food plans developed to meet the RDA in full would be expected to provide generous amounts of nutrients for most people. The NAS-NRC states, "Differences in the nutrient requirements of individuals are ordinarily unknown. Therefore, RDA (except for energy) are estimated to exceed requirements of most individuals and thereby to ensure that the needs of nearly all in the population are met." NAS-NRC further states, "The basis of estimation of RDA is such that, even if a specific individual habitually consumes less than the recommended amounts of some nutrients, his diet is not necessarily inadequate for those nutrients (3)."

In developing the food plans, standards were not specified for some dietary factors for which RDA are established. The requirement for vitamin D for normal people can be met by exposure to sunlight. For persons whose activities limit their exposure to sunlight, the RDA of 5 to 10 micrograms per day should be provided by the diet or by supplementation. Some food sources of vitamin D are eggs, liver, butter, and milk fortified with vitamin D. Iodization of salt is an efficient way to supplement dietary iodine; however, there is increasing evidence that levels in U.S. diets are abundant (7).

Estimated safe and adequate ranges of intakes were estimated by the NAS-NRC for the first time in 1980 for the vitamins--K, biotin, and pantothenic acid; the trace elements--copper, manganese, flouride, chromium, selenium, and molybdenum; and the electrolytes--sodium, potassium, and chloride. Because of the tentative nature of these estimates and insufficient food composition data, levels of these substances (except sodium) were not considered in developing the 1983 food plans.

Dietary fiber is another important dietary factor. It is necessary for the normal functioning of the intestinal tract. The food plans provide fiber in the whole-grain cereals, vegetables, fruits, and legumes they contain.

Allowance for household discard of food

The food plans specify quantities of foods as they are brought into the kitchen. Some of this food, such as bones, fruit pits, and peelings, is discarded because it is inedible. In addition, it is assumed that food plan users discard one-half of the drippings and trimmable fat from meat, poultry, and fish. Food

composition data used in food plan development include adjustments to exclude energy and nutrients in inedible parts of food, one-half of the meat, poultry, and fish drippings and fat, and vitamins lost during cooking of all foods.

In most households some edible food does not get eaten. For example, some edible food may be discarded during preparation, as plate waste, or due to spoilage. To allow for such discard without jeopardizing the nutritional quality of the plans, the dietary standards specified for energy, protein, vitamins, minerals, and other dietary factors were increased by 10 percent in defining the limits for the low-cost plan, by 20 percent for the moderate-cost plan, and by 30 percent for the liberal plan. (The dietary standard plus this discard factor is referred to as the nutritional goal for the food plan.)

Little is known about the amount of edible food households discard. Discard assumptions for the 1983 food plans are the same as those for the 1974-75 food plans. Preliminary unpublished results from a recent study conducted by HNIS using NFCS data tend to support the assumption that households with low food costs per person discard less edible food than households with higher food costs. In the study the average daily food intakes from home food supplies reported by household members were compared with the reported quantities of foods used by households (converted to ready-to-eat weight basis). At least some of the difference between these two measures of consumption represents edible food discard.

#### Sex-age categories

Food plans were developed for 11 sex-age categories. Food consumption behavior, nutritional requirements, and consistency with categories used for presenting the RDA and those used previously for the food plans were factors considered in defining the 11 categories:

Child: 1-2 years, 3-5 years, 6-8 years, 9-11 years

Male: 12-14 years, 15-19 years, 20-50 years, 51 years or more

Female: 12-19 years, 20-50 years, 51 years or more

#### Food groups

The 31 food groups include all of the several thousand foods households reported using in 1977-78 (table 5). Alcoholic beverages were reported in the survey but are not included in the food plans. In grouping foods, their composition, cost, and use in meals were considered. For example, vegetables in the "high-nutrient vegetables" group were systematically selected for their relatively high nutrient-to-calorie ratio and content per serving of vitamin A, vitamin B<sub>6</sub>, ascorbic acid, iron, and magnesium. Meats were grouped as lower cost and higher cost by the cost per unit of protein they provide. Commercially-prepared mixtures were set apart because their nutritive values, nutrient-to-calorie ratios and nutrient-to-dollar ratios differ from those of food groups containing their principle ingredients.

Despite efforts to group foods by their composition, and to some extent by their price levels, the nutrient content and price levels of foods within a single group differ. Therefore, it is assumed that persons following the plan make selections from each group that are as nutritious and economical as selections made on the average by the sample households. Individuals following the plan are expected to use quantities of food groups such as bread, cereal, flour, and legumes specified in the plan. However, they are expected to be

no better than average shoppers in finding the most nutritious and economical kinds of bread, cereal, flour, and legumes.

#### Nutritive values for food groups

The average nutritive value per pound of the 31 food groups was calculated for each food plan by weighting the nutritive value of each food in the group by the average number of pounds reported as used by sample households. Nutritive values are for the edible part of a pound of food (as purchased) with vitamin values adjusted for losses during cooking. Values for meat, poultry, and fish items were adjusted to assume discard of one-half of the drippings and trimmable fat.

Food composition data used were compiled primarily by the Consumer Nutrition Division's Nutrient Data Research Branch. Dietary factors covered were energy, protein, vitamin A value, thiamin, riboflavin, niacin equivalents, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, folacin, ascorbic acid, vitamin E, calcium, iron, magnesium, phosphorus, zinc, total fat, cholesterol, caloric sweeteners, and sodium. Food composition data were limited for vitamins B<sub>6</sub>, B<sub>12</sub> and E, folacin, magnesium, zinc, sodium, cholesterol, and caloric sweeteners. However, available information was used to estimate levels for food consumption patterns and for the food plans.

#### Prices for food groups

Prices were reported by survey households for each purchased food used. For home-produced foods and foods received as gift or pay, the average price per pound paid for that food by survey households in the same region and season was used. Prices of each food were updated from the time of the survey (1977-78) to January 1981 levels using the change for that period in the Consumer Price Index's detailed food expenditure category which contains the food. (See page 15.) Then, the average price per pound of the 31 food groups was calculated for each plan by weighting the price of each food in the group by the average number of pounds reported as used by sample households.

#### Food consumption patterns

Data from the basic sample of the 1977-78 NFCS (see page 4) were used to develop the food consumption patterns. These patterns are estimated average quantities (as purchased) of 31 food groups that persons in each of 11 sex-age categories used for preparation of meals and snacks. They are the starting points for food plans for the 11 sex-age categories.

Expressing food consumption patterns in terms of as purchased quantities allows calculation of their cost and the cost of the food plans that are based on them because prices of foods as purchased by households are available from the NFCS.

The quantities of foods in consumption patterns are estimated because survey households were not asked to report, for each household member, the quantity (as purchased) of food they used for meals and snacks. Such information is generally not known by the respondent. However, households reported the quantity (as purchased) of the foods used by the entire household in a week and the quantity (as served) of foods each household member ate for a 3-day period. From these data, the share of household food that was used for household members in the 11 sex-age

categories was estimated as follows: Foods eaten were grouped into the 31 food groups. Average quantities of foods eaten by household members in the sex-age categories were weighted by the sex-age composition of the survey households to estimate the average quantity eaten per person in the households. Then, for each food group, the ratio of the average quantity eaten by each sex-age category to the weighted average quantity eaten per person in the households was determined. These ratios were multiplied by the average quantity (as purchased) of the food group used per person in survey households to estimate the quantity of food group used for each sex-age category.

Quantities of the 31 food groups for each of the 11 sex-age categories were next increased or decreased proportionately to provide the nutritional goal for energy--the midpoint of the RDA range plus the allowance for discard of food (see page 6). Thus, the quantities of food were adjusted to provide energy levels the NAS-NRC considers sufficient before quantities were modified by the computerized model to meet other nutritional and cost goals. Total food energy for a sex-age category from the survey data may have differed from the goal for several reasons. More or less food may have been eaten than was required to provide the RDA, or the discard of edible food due to plate waste and spoilage in the household may have been different than the amount allowed for in the plan. In adjusting quantities of food groups proportionately to provide the food energy goal, it was assumed that all food groups were equally affected by such differences.

#### Nutritive value of food in consumption patterns

Although the food consumption patterns for the sex-age categories, by design, met the RDA midpoint for food energy, none of the consumption patterns met all of the dietary standards established for the food plans (tables 6-8).

Consumption patterns at all three cost levels provided the RDA or more for protein, vitamin A value, thiamin, riboflavin, niacin equivalents, vitamin B<sub>12</sub>, ascorbic acid, and phosphorus. They also met the dietary standards of 80 percent of the RDA for vitamin E and 0.02 milligrams of vitamin B<sub>6</sub> per gram of protein in the pattern. However, patterns were low in calcium, magnesium, iron, folacin, and zinc for some sex-age categories. These categories were fairly consistent for the three plans (tables 6-8). The sex-age categories with patterns for all three plans that failed to meet the dietary standards specified for the food plans (see page 4) are shown below:

<u>Nutrient</u>	<u>Dietary Standard</u>	<u>Sex-age category with pattern below standard</u>
Calcium	100% RDA	Children, 1-2 years; teenage girls; women
Magnesium	100% RDA	Boys, 15-19 years; teenage girls; women, 20-50 years
Iron	90% RDA for child 1-2 years, 100% RDA for others	Children, 1-5 years; teenage girls; women, 20-50 years
Folacin	80% RDA	Teenage girls; women
Zinc	80% RDA	Children, 1-2 years; teenage girls; women

The fat content of food in consumption patterns exceeded the 35 percent-of-food energy standard for the three food plans for almost all sex-age categories. Cholesterol levels in some patterns, particularly for teenage boys and adult males, were high. For example, 20- to 50-year-old males had consumption levels from 491 to 525 mg per day. Caloric sweeteners exceeded the 12 percent of food energy standard for all sex-age categories. They were highest for children 6 years and over and teenagers, accounting for 16 to 19 percent of kcal. The sodium content of food in all patterns exceeded safe and adequate levels specified as part of the 1980 RDA; however, pattern levels are believed to be unrealistically high because of the way the consumption of salt and seasonings was reported in the survey. (See footnote 5 on tables 6-8.)

Because none of the food consumption patterns met all of the dietary standards for the food plans, adjustment to the patterns for all sex-age categories was required in developing the food plans.

#### Limits on quantities of food groups in the plans

For each food group, minimum and maximum quantities that could be included in the food plans were predetermined. Such limits help assure that the food plans will be practical as a basis for meal preparation. Generally, extremely broad quantity limits were used. The lower and upper limits were based on the 25th and the 90th percentiles on distributions of the quantity of food group used per person by survey households. More stringent upper limits were placed on three groups: Salt and seasonings; soft drinks, punches, and ades; and coffee and tea. Quantities of vegetable and fruit groups (except condiments and mixtures) in the food plans were not allowed to be below quantities in the consumption pattern. This special limit was imposed to assure that some dietary fiber of the type found in vegetables and fruits is contained in the plans.

#### Costs for the 1983 food plans

Costs for the food plans were set to help assure that (1) costs would conform to the general cost level (per capita cost) desired for the plan and (2) sex-age categories would have an equal chance for a nutritious diet.

To do this, first the cost of food in consumption patterns for each sex-age category was calculated. Then, costs for each plan were weighted by the resident census population, July 1, 1979 (8), to determine the average cost of the patterns per capita. The per capita cost of the low-cost consumption patterns was compared to a target per capita cost for the plan at the midpoint of the second quartile (37.5th percentile) on a distribution of survey households by money value of food at home per 1000 kcal. Per capita costs for the moderate-cost and liberal patterns were compared to target costs at the midpoint of the third quartile (62.5th percentile) and the fourth quartile (87.5th percentile), respectively, on the same distribution of households. The per capita cost for the low-cost consumption patterns was 7 percent above the target cost. Costs for the moderate-cost and liberal patterns were below target costs by 3 percent and 16 percent respectively.

Next, for the low-cost food plan, a cost for each sex-age category was predetermined. Costs were determined as follows: Using the quadratic programming model, two preplans were developed for each sex-age category--one at least cost and the other with no cost limit. Each preplan started with the food consumption patterns and met the dietary standards and quantity limits established for the 1983 food plans. Costs were determined for each of the categories by adding

a constant proportion of the difference between costs for the two preplans to the cost of the least cost preplan. The proportion used was set to result in a per capita cost for the low-cost plan equal to the cost of food at the midpoint of the second quartile on a distribution of households by money value of food at home per 1000 kcal.

For the moderate-cost and liberal food plans, the per capita costs were limited to no more than the cost of food at the midpoint of the third and fourth quartiles, respectively, on this distribution of households by money value of food at home per 1000 kcal. However, when moderate-cost and liberal food plans were developed to meet the dietary standards and quantity limits without controlling cost, they were less expensive per capita than either the consumption patterns on which they were based or the target costs. This is because some of the less costly sources of nutrients such as dry beans and peas and grain products are good sources of nutrients low in many diets. Quantities of these foods often need to be increased in diets planned to meet dietary standards set for the food plans.

Thus, adjustment to quantities of food groups in the low-cost consumption patterns were needed to reduce cost as well as to meet nutritional goals. Adjustments to moderate-cost and liberal patterns, on the other hand, were needed to meet nutritional but not cost constraints for the food plans.

Table 4 shows the costs for the 1974-75 and the 1983 food plans for each sex-age category (January 1981 price level). Per capita costs for each of the three food plans are approximately the same as those for the 1974-75 plans. However, cost relationships among sex-age categories have changed. The 1983 food plans cost less than the 1974-75 food plans (both at January 1981 price levels) for children 9 to 11 years, boys 15 to 19 years, men 20 to 50 years, and girls 12 to 19 years. They cost more for children 1 to 8 years, men 51 years and over, and women 20 to 50 years, and substantially more for women 51 years and over. Cost relationships among plans varied for boys 12 to 14 years. Cost differences between the 1974-75 and 1983 food plans reflect differences in costs of food in consumption patterns from the 1965-66 and the 1977-78 surveys. They also reflect the relative costs of meeting nutritional goals used for the 1974-75 and the 1983 food plans. For example, the cost of food plans for the older woman had to be relatively high to purchase foods needed to improve her dietary levels of zinc and folacin--nutrients not considered in developing the earlier plans.

Women, whose consumption patterns are notably low in several nutrients, require a larger share of the household food dollar to meet nutritional goals than reflected by consumption patterns. Procedures which set household food cost shares for sex-age categories based on costs of nutritious diets with or without cost limitations take this fact into account. For example, the table below shows that consumption patterns for men 20 to 50 years old cost from 30 to 34 percent more than comparable patterns for women. Food plans developed to meet the specified dietary standards, however, cost only 11 to 18 percent more for these men than these women.

<u>Food plan</u>	<u>Woman</u>	<u>Man</u>	<u>Difference</u>
	<u>---Dollars per week*---</u>		<u>%</u>
Low-cost			
Pattern	18.29	23.85	+30
Plan	17.81	20.20	+13
Moderate-cost			
Pattern	21.02	27.50	+31
Plan	21.52	25.29	+18
Liberal			
Pattern	25.15	33.81	+34
Plan	27.36	30.24	+11

\*January 1981 prices

#### USDA's family food plans, 1983

The low-cost, moderate-cost, and liberal food plans for 11 sex-age categories are shown in tables 1-3. They are presented in terms of quantities of 31 food groups on an as purchased basis.

Quantities of food groups in the three food plans differed because of differences in (1) the discard allowances assumed, (2) the quantities of food groups in consumption patterns used as starting points in developing the plans, (3) the nutrient composition of food in the consumption patterns as they relate to the dietary standards for the plans, and (4) the cost constraints for the plans.

Discard allowances are discussed in detail on page 6. In brief, food group quantities for the low-cost, moderate-cost, and liberal plans are sufficient to provide 10, 20, and 30 percent, respectively, above the dietary standards. These overages allow for nutrients lost as discarded edible food. For this reason, the higher cost plans tend to have more of most food groups than the lower cost plans.

Quantities of food in the food plans, in terms of food as served in a day after adjustment to exclude amounts assumed as discard, are shown in tables 9-11. The table below summarizes quantities of food as served on a daily basis in consumption patterns and 1983 plans for a four-person household (man and woman 20 to 50 years, children 6 to 8 and 9 to 11 years).

<u>Food*</u>	<u>Unit</u>	<u>Low-cost</u>		<u>Moderate-cost</u>		<u>Liberal</u>	
		<u>Pattern</u>	<u>Plan</u>	<u>Pattern</u>	<u>Plan</u>	<u>Pattern</u>	<u>Plan</u>
----- <u>Number of units</u> -----							
Vegetables, fruit	1/2 c	18.1	18.3	18.3	19.9	18.6	21.1
Grain products	1 oz (slice)	25.1	38.7	25.3	36.7	24.6	35.2
Milk, yogurt	1 c	6.5	6.5	6.4	6.5	6.0	6.1
Cheese (per week)	1 oz	20.5	15.8	20.7	17.8	25.5	20.9
Meat, poultry, fish, boned	1 oz	19.1	15.5	19.9	18.6	20.4	19.4
Eggs (per week)	no.	14.7	11.9	13.4	10.9	13.9	10.5
Cooked dry beans, peas, nuts	1/2 c	0.9	1.5	0.9	1.4	0.8	1.3
Fats, oils	1 tbsp	10.1	7.6	10.2	6.4	10.3	6.9
Sugar, sweets	1 tbsp	16.8	9.6	15.4	10.8	15.4	12.3
Soft drinks, punches, ades	1 c	6.3	3.2	6.1	3.0	6.4	3.1

\*See footnotes on tables 9-11.

As the cost of the plan increases, the quantities of vegetable and fruit and meat, poultry, and fish groups generally increase and the quantities of dry beans, peas, and nuts, grain products, and eggs generally decrease. These differences between plans reflect, in part, similar differences in consumption patterns.

The effect of cost constraints for the plans is also apparent. The low-cost plan, where costs were controlled, relies more heavily on the food groups that are the most economical sources of nutrients. In addition, users of the low-cost plan are expected to select more often the lower cost foods within food groups--ground beef rather than steak, for example. Conversely, more expensive choices within food groups account for much of the greater cost of the liberal plan.

The dietary standards set for the plans also play a role in explaining quantities of food groups in the plans. Nutritional shortcomings of consumption patterns for the three plans were similar and were of the same general magnitude for a particular sex-age category (see page 8 and tables 6-8). Because folacin, calcium, iron, magnesium, and zinc were the nutrients most often short in consumption patterns, adjustments to patterns generally increased quantities of food groups that provide these nutrients, especially those with low to moderate levels of fat, cholesterol, caloric sweeteners, and sodium. Thus, quantities of grain products and legumes in all of the plans tend to be greater than those in consumption patterns.



Quantities of cheese, meat, eggs, fats and oils, sugar and sweets, and soft drinks, punches and ades, on the other hand, tend to be smaller than those in consumption patterns. However, these differences vary for each sex-age category according to nutrient problems in the category's consumption pattern. For example, women 51 years and over need a diet with a much higher nutrient density than their patterns provide in order to meet dietary standards within their calorie allowance; their plans generally contain more meat, cheese, and eggs than their patterns.

#### Comparison of the 1974-75 and 1983 food plans

Differences in the 1974-75 and 1983 food plans result from differences in both food consumption patterns used as their bases and dietary standards used in their development. The table below shows weekly quantities of selected food groups (as purchased) from 1974-75 and 1983 plans totaled for a four-person household (man and woman 20 to 50 years, children 6 to 8 and 9 to 11 years).

<u>Food</u>	<u>Low-cost plan</u>		<u>Moderate-cost plan</u>		<u>Liberal plan</u>	
	<u>1974-75</u>	<u>1983</u>	<u>1974-75</u>	<u>1983</u>	<u>1974-75</u>	<u>1983</u>
-----Pounds, as purchased*-----						
Vegetables, fruit	33.3	34.5	39.2	41.4	45.3	47.4
Cereal, flour rice, pasta	6.3	7.1	5.2	7.2	5.3	8.1
Bread	6.3	6.9	5.9	7.0	5.6	7.2
Other bakery products	4.4	3.7	5.4	4.1	6.0	4.3
Milk, cheese, other dairy (milk equiv. in quarts)	16.0	17.5	19.2	19.5	20.7	20.4
Meat, poultry, fish	12.4	13.7	15.8	18.0	18.9	21.0
Eggs (no.)	14.8	13.1	15.3	13.1	15.4	13.7
Dry beans, peas, nuts (dry/ shelled weight)	1.4	1.5	1.2	1.5	1.3	1.6
Fats, oils	2.6	1.9	2.8	1.8	2.9	2.1
Sugar, sweets	3.6	2.4	4.1	2.7	4.3	3.1

\*Quantities in pounds except milk, which is in quarts and eggs, which are by number.

Lower quantities for most sex-age categories of fats and oils, sugar and sweets, bakery products, and eggs in 1983 food plans than in 1974-75 plans resulted partly from lower consumption of foods in these food groups by households in the 1977-78 survey than in the 1965-66 survey. More meat, dry beans, vegetables, fruit, cereal, bread, and flour were needed in the 1983 than in the 1974-75 plans, partly to help provide desired levels of folacin and zinc, nutrients not considered in the earlier plans. Lower standards for fat, caloric sweeteners, and cholesterol for the 1983 plans were also factors.

#### Food plan development--an ongoing project

The maintenance of the USDA food plans--their development, their interpretation through publications for leaders and consumers, and the periodic estimates of their costs--is an ongoing project in the HNIS. The food plans are evaluated, and revised as required, when new information becomes available on food consumption, food prices, food composition, and nutritional requirements.

The 1983 food plans reflect the most recent, complete, and reliable information available; however, such information has limitations. Current food consumption may differ from that reported in 1977-78; our Nutrient Data Bank has information gaps on the content of some nutrients in some foods; and dietary standards must be derived from research results that are not always sufficient and consistent.

In developing the food plans and estimating costs of foods they contain, the basic assumption is made that families might be encouraged to change the amounts of food groups they use to achieve a nutritious diet. However, we recognize that the public may have neither sufficient information nor the inclination to do so.

Each food plan is only one of many combinations of food groups that could be developed at the given cost level. Amounts of food groups in the food consumption patterns could be changed in other ways to provide nutritious diets. While such other combinations would deviate further from consumption patterns, they might be acceptable to some households.

Other food plans at similar costs could be developed if we did not assume selections of foods within food groups to be typical of those of survey households. If the foods within the groups were limited to those that are especially inexpensive or especially nutrient dense, the quantities of food groups in the food plan probably would not be required to deviate from food consumption to the extent the 1983 food plans do. For example, if only nonfat dry and fluid skim milk were used, the extra calories and cost of the typical assortment of milk assumed in the 1983 food plans could be used for other foods in the food plan. For purposes of establishing food plans at different costs for use nationwide, and estimating the nutrient content and cost of foods in the food plan, food within food groups used, on the average, by households with different levels of food cost are believed to be most reasonable.

### III. Estimated Costs for the Family Food Plans

U.S. average costs of foods in the food plans are estimated each month and released by USDA's news service. The costs are also released periodically in the Agricultural Research Service's Family Economics Review and to a list of educators, administrators, lawyers, and researchers who use these costs for a variety of purposes.

#### How costs are estimated

Average prices paid for over 2,400 different foods by survey households in 1977-78 are used as a basis for the estimates for the food plans. These average prices reflect the assortment of container sizes and brands, the quality of foods selected, and the price levels in stores where foods were purchased by survey households.

Procedures used in updating costs of the plans with these prices are as follows:

1. Prices paid by survey households are updated by using the percentage change in price indexes of detailed food expenditure categories from the time of the survey to the month of the estimate. Indexes for these food expenditure categories are based on prices collected each month by the Bureau of Labor Statistics (BLS) from a representative sample of stores in selected cities across the country. For example: Survey households used as a basis for the moderate-cost food plan paid an average price of \$1.04 a pound for ground beef in 1977-78; and the index for the food expenditure category containing ground beef reported by BLS in November 1982 is 64 percent higher than the index reported in 1977-78. A price of \$1.71 ( $\$1.04 + 64\% \text{ of } \$1.04$ ) is used for ground beef in estimating the cost of the moderate-cost food plan for November 1982.
2. The updated prices for foods in each food group for each food plan are weighted by the average amounts of foods used by the survey households to derive prices per unit--pound, quart, or number for the food groups.
3. The prices per unit are then multiplied by the number of units of food groups in the plan for each sex-age category (tables 1-3) to determine the cost of foods from each food group.
4. Costs for the food groups for each category are totaled. These totals, rounded to the nearest 10 cents, are released as the cost of food at home for a week. Unrounded weekly costs are multiplied by 4.333, then rounded to the nearest 10 cents, to estimate the cost for the month.

#### The cost of the plans for a household

Each month USDA releases updated cost estimates for the food plans. These costs will be based on the 1983 low-cost, moderate-cost, and liberal plans starting with the April 1983 estimates, and will be shown in a format similar to the one for table 4. This information can be used to calculate the cost for food at home for a specific household following one of the food plans as follows:

1. Find the weekly cost for each person eating from household food supplies. List the cost opposite the age and sex of each person as follows:

- o For household members who eat all meals at home (or carry meals from home, such as lunches or picnics), use the weekly cost shown on the cost of food at home table.
- o For household members who eat some meals out, deduct 5 percent for each meal not eaten at home from the cost in the table. For example, if a child eats lunch out five times a week, subtract 25 percent, or one-fourth, of the cost shown for the child's age category.
- o For guests and others who occasionally eat in the household, list 5 percent of the cost in the table for the proper age category for each meal. Suppose grandmother eats her midday and evening meals with the family every Sunday. Add 10 percent, or one-tenth, of the amount for women of her age.

2. Next, total the costs listed and adjust the total if there are more or fewer than four persons usually eating at the household table. Costs on the cost of food at home table are for individuals in households of four persons. Adjustment<sup>1</sup> is necessary because large households tend to buy and use foods more economically than small households.

If the household has--

1 person.....	add 20 percent
2 persons.....	add 10 percent
3 persons.....	add 5 percent
4 persons.....	use as is
5 or 6 persons.....	subtract 5 percent
7 or more persons.....	subtract 10 percent

---

<sup>1</sup>Information on the derivation of the adjustment factors is available upon request from the Human Nutrition Information Service, Hyattsville, MD 20782

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Table 1.--Low-cost food plan, 1983: Quantities of food for a week<sup>1</sup>

Food group <sup>2</sup>	Child				Male				Female <sup>3</sup>		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
Pounds <sup>4</sup>											
<b>Vegetables, fruit:</b>											
Potatoes (fresh weight)-----	0.50	0.73	1.16	1.28	1.55	1.88	1.97	1.71	1.19	1.19	1.11
High-nutrient vegetables-----	.55	.50	.86	.98	1.30	1.34	1.91	2.00	1.19	1.86	2.17
Other vegetables-----	.82	.88	1.20	1.41	1.41	1.54	2.12	2.19	1.54	2.30	2.04
Mixtures, mostly vegetable; condiments-----	.06	.10	.14	.17	.18	.20	.29	.30	.15	.24	.15
Vitamin-C-rich fruit <sup>5</sup> -----	1.51	1.43	1.79	1.94	2.03	2.16	1.62	1.75	1.76	1.79	1.91
Other fruit <sup>5</sup> -----	1.97	1.58	2.30	2.44	2.07	1.45	1.98	2.21	1.81	1.53	2.19
<b>Grain products:</b>											
Whole-grain/high-fiber breakfast											
cereals-----	.35 <sup>6</sup>	.27	.31	.35	.36	.28	.14	.22	.33	.21	.31
Other breakfast cereals-----	.38 <sup>6</sup>	.26	.33	.38	.39	.31	.16	.25	.36	.23	.22
Whole-grain/high-fiber flour, meal,											
rice, pasta-----	.11	.07	.08	.09	.10	.10	.11	.10	.09	.09	.12
Other flour, meal, rice, pasta-----	.86	.83	1.04	1.17	1.32	1.34	1.40	1.34	.95	1.01	.83
Whole-grain/high-fiber bread-----	.12	.17	.22	.26	.31	.39	.42	.30	.28	.30	.25
Other bread-----	.41	.79	1.08	1.28	1.52	1.95	2.08	1.45	1.19	1.24	.84
Bakery products, not bread-----	.09	.36	.62	.75	.96	.85	.86	.71	.44	.46	.19
Grain mixtures-----	.15	.20	.18	.30	.33	.34	.29	.13	.23	.22	.14
<b>Milk, cheese, cream:</b>											
Milk, yogurt (quarts) <sup>7</sup> -----	3.41	3.23	4.26	4.69	5.02	4.86	2.49	2.07	4.64	1.85	2.16
Cheese-----	.17	.17	.20	.19	.22	.30	.36	.28	.34	.34	.35
Cream, mixtures mostly milk-----	.13	.44	.57	.69	.67	.75	.51	.50	.65	.34	.55
<b>Meat and alternates:</b>											
Lower-cost red meats, variety meats-----	.71	.52	.60	.74	.99	1.23	1.65	1.23	1.13	1.57	1.67
Higher-cost red meats, variety meats-----	.37	.38	.47	.57	.79	.94	.86	1.04	.70	.95	1.21
Poultry-----	.42	.43	.63	.67	.85	.77	.94	.98	.83	.91	.95
Fish, shellfish-----	.09	.07	.14	.11	.16	.14	.25	.23	.17	.21	.19
Bacon, sausage, luncheon meats-----	.15	.39	.48	.51	.58	.57	.34	.58	.29	.41	.21
Eggs (number)-----	3.34	3.24	2.50	2.99	3.02	2.97	3.38	3.93	3.82	4.23	4.02
Dry beans, peas, lentils (dry weight) <sup>8</sup> -----	.22	.09	.12	.15	.20	.19	.27	.19	.24	.34	.14
Mixtures, mostly meat, poultry, fish,											
egg, legume-----	.08	.08	.11	.15	.19	.20	.22	.15	.16	.17	.16
Nuts (shelled weight), peanut butter-----	.09	.20	.20	.22	.20	.22	.14	.08	.11	.07	.04
<b>Other foods:<sup>9</sup></b>											
Fats, oils-----	.09	.27	.43	.50	.55	.54	.68	.54	.25	.32	.26
Sugar, sweets-----	.15	.46	.57	.62	.74	.77	.84	.83	.43	.35	.43
Soft drinks, punches, ades											
(single strength)-----	1.53	1.96	2.72	3.25	3.35	4.63	3.67	1.19	3.96	3.33	.96

<sup>1</sup>Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 10 percent of the edible parts of food above quantities needed to meet kcal needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

<sup>2</sup>See table 5 for foods in food groups.

<sup>3</sup>Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

<sup>4</sup>Quantities in pounds except milk, which is in quarts and eggs, which are by number.

<sup>5</sup>Frozen concentrated juices are included as single-strength juice.

<sup>6</sup>Cereal fortified with iron is recommended.

<sup>7</sup>Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

<sup>8</sup>Count one pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

<sup>9</sup>Small quantities of coffee, tea, and seasonings are not shown. Their cost is a part of the estimated cost for the food plan.

Table 2.--Moderate-cost food plan, 1983: Quantities of food for a week<sup>1</sup>

Food group <sup>2</sup>	Child				Male				Female <sup>3</sup>		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
Pounds <sup>4</sup>											
<b>Vegetables, fruit:</b>											
Potatoes (fresh weight)-----	0.68	0.81	1.34	1.90	1.69	2.17	2.11	1.81	1.31	1.31	1.03
High-nutrient vegetables-----	.78	1.00	.88	1.48	1.33	1.55	2.22	2.17	1.56	2.51	2.76
Other vegetables-----	1.06	.81	1.38	1.82	1.65	2.11	2.51	2.76	1.86	2.71	2.52
Mixtures, mostly vegetable; condiments-----	.10	.12	.17	.22	.21	.26	.32	.34	.20	.29	.23
Vitamin-C-rich fruit <sup>5</sup> -----	1.60	1.92	2.61	2.47	2.10	2.32	2.26	2.15	1.96	2.22	2.51
Other fruit <sup>5</sup> -----	1.98	2.19	2.32	2.44	2.88	2.42	1.99	3.12	1.81	1.91	2.78
<b>Grain products:</b>											
Whole-grain/high-fiber breakfast cereals-----	.53 <sup>6</sup>	.24	.35	.42	.42	.38	.19	.22	.41	.23	.23
Other breakfast cereals-----	.43 <sup>6</sup>	.26	.38	.47	.46	.43	.21	.25	.42	.24	.17
Whole-grain/high-fiber flour, meal, rice, pasta-----	.07	.06	.07	.07	.09	.08	.11	.10	.06	.08	.11
Other flour, meal, rice, pasta-----	.81	.81	.87	.86	1.19	1.03	1.53	1.38	.86	1.10	.85
Whole-grain/high-fiber bread-----	.11	.19	.25	.31	.34	.50	.46	.34	.30	.32	.26
Other bread-----	.41	.82	1.07	1.34	1.52	2.18	2.02	1.48	1.24	1.27	.87
Bakery products, not bread-----	.21	.53	.76	.65	.78	.86	.93	.80	.59	.53	.31
Grain mixtures-----	.14	.18	.26	.46	.43	.46	.30	.15	.32	.25	.18
<b>Milk, cheese, cream:</b>											
Milk, yogurt (quarts) <sup>7</sup> -----	3.79	3.58	4.72	5.16	6.07	5.38	2.62	1.93	5.09	1.89	2.24
Cheese-----	.18	.18	.29	.21	.26	.46	.39	.40	.38	.44	.40
Cream, mixtures mostly milk-----	.28	.34	.71	.99	1.08	.75	.59	.61	.70	.25	.58
<b>Meat and alternates:</b>											
Lower-cost red meats, variety meats-----	.51	.60	.85	1.11	1.36	1.19	1.48	1.37	1.12	1.60	1.58
Higher-cost red meats, variety meats-----	.46	.64	.90	1.17	1.43	1.35	1.60	1.46	1.04	1.35	1.50
Poultry-----	.57	.59	.82	1.00	1.15	.74	1.12	1.03	.94	1.06	1.03
Fish, shellfish-----	.10	.16	.22	.29	.40	.36	.41	.51	.41	.41	.56
Bacon, sausage, luncheon meats-----	.26	.42	.59	.50	.26	.72	.50	.43	.32	.24	.22
Eggs (number)-----	3.64	3.40	2.52	3.08	2.42	2.73	3.10	3.83	3.23	4.37	4.12
Dry beans, peas, lentils (dry weight) <sup>8</sup> -----	.10	.07	.16	.21	.20	.18	.23	.20	.24	.35	.19
Mixtures, mostly meat, poultry, fish, egg, legume-----	.08	.10	.14	.16	.17	.23	.29	.19	.17	.19	.17
Nuts (shelled weight), peanut butter-----	.05	.13	.18	.15	.28	.13	.16	.04	.06	.03	.02
<b>Other foods:<sup>9</sup></b>											
Fats, oils-----	.11	.30	.31	.46	.52	.57	.65	.62	.28	.36	.29
Sugar, sweets-----	.17	.49	.60	.68	.79	.84	.92	.91	.42	.47	.44
Soft drinks, punches, ades (single strength)-----	1.57	2.37	2.86	3.69	3.90	4.84	3.73	1.06	4.26	3.71	1.18

<sup>1</sup>Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 20 percent of the edible parts of food above quantities needed to meet kcal needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

<sup>2</sup>See table 5 for foods in food groups.

<sup>3</sup>Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

<sup>4</sup>Quantities in pounds except milk, which is in quarts and eggs, which are by number.

<sup>5</sup>Frozen concentrated juices are included as single-strength juice.

<sup>6</sup>Cereal fortified with iron is recommended.

<sup>7</sup>Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

<sup>8</sup>Count one pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

<sup>9</sup>Small quantities of coffee, tea, and seasonings are not shown. Their cost is a part of the estimated cost for the food plan.

Table 3.-- Liberal food plan, 1983: Quantities of food for a week<sup>1</sup>

Food group <sup>2</sup>	Child				Male				Female <sup>3</sup>		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
Pounds <sup>4</sup>											
<b>Vegetables, fruit:</b>											
Potatoes (fresh weight)-----	.70	.78	1.13	1.48	1.57	2.44	2.06	1.74	1.20	1.18	1.10
High-nutrient vegetables-----	.78	.81	1.24	1.22	1.57	1.78	2.79	2.77	1.89	3.90	2.81
Other vegetables-----	1.03	.87	1.47	1.61	2.08	2.04	3.02	3.14	2.00	3.72	2.89
Mixtures, mostly vegetable; condiments-----	.10	.11	.18	.19	.24	.29	.49	.36	.19	.34	.28
Vitamin-C-rich fruit <sup>5</sup> -----	1.65	2.28	2.32	3.26	2.79	3.08	2.72	2.50	2.21	2.47	2.63
Other fruit <sup>5</sup> -----	3.24	2.47	2.68	3.38	2.54	2.29	2.44	3.02	2.09	2.15	3.13
<b>Grain products:</b>											
Whole-grain/high-fiber breakfast cereals-----	.53 <sup>6</sup>	.25	.32	.37	.51	.48	.27	.19	.45	.20	.24
Other breakfast cereals-----	.54 <sup>6</sup>	.26	.34	.40	.56	.52	.30	.21	.46	.20	.17
Whole-grain/high-fiber flour, meal, rice, pasta-----	.05	.06	.09	.09	.08	.10	.11	.11	.07	.09	.09
Other flour, meal, rice, pasta-----	.85	.89	1.26	1.35	1.20	1.40	1.48	1.54	.93	1.22	.81
Whole-grain/high-fiber bread-----	.13	.20	.25	.33	.45	.52	.60	.43	.34	.21	.28
Other bread-----	.45	.76	.94	1.26	1.71	1.94	2.22	1.61	1.24	1.38	.86
Bakery products, not bread-----	.29	.62	.81	.64	.95	.98	.91	.97	.55	.56	.41
Grain mixtures-----	.23	.29	.34	.38	.46	.43	.35	.18	.42	.31	.15
<b>Milk, cheese, cream:</b>											
Milk, yogurt (quarts) <sup>7</sup> -----	4.14	3.64	5.05	5.13	6.12	5.30	2.46	1.87	5.44	2.05	2.42
Cheese-----	.23	.24	.41	.38	.34	.50	.45	.41	.43	.45	.45
Cream, mixtures mostly milk-----	.17	.57	.61	.77	.69	.33	.19	.68	.96	.15	.76
<b>Meat and alternates:</b>											
Lower-cost red meats, variety meats-----	.60	.54	.98	1.07	1.21	1.23	1.46	1.35	1.15	1.95	1.36
Higher-cost red meats, variety meats-----	.61	.73	1.13	1.44	1.66	1.65	2.00	1.80	1.42	1.64	1.69
Poultry-----	.38	.79	.89	1.18	1.06	1.05	1.17	1.20	.89	1.28	1.31
Fish, shellfish-----	.22	.26	.27	.36	.38	.34	.74	.77	.66	.91	.89
Bacon, sausage, luncheon meats-----	.18	.53	.51	.62	.68	.70	.36	.43	.27	.19	.22
Eggs (number)-----	3.51	2.72	2.48	3.73	2.87	3.11	3.55	3.84	3.86	3.90	4.27
Dry beans, peas, lentils (dry weight) <sup>8</sup> -----	.07	.13	.14	.20	.26	.17	.30	.20	.26	.27	.16
Mixtures, mostly meat, poultry, fish, egg, legume-----	.10	.13	.15	.19	.31	.26	.19	.21	.24	.28	.19
Nuts (shelled weight), peanut butter-----	.03	.20	.26	.22	.21	.26	.21	.04	.03	.01	.06
<b>Other foods:<sup>9</sup></b>											
Fats, oils-----	.10	.25	.34	.48	.56	.65	.82	.68	.34	.43	.30
Sugar, sweets-----	.20	.47	.71	.84	.89	.94	1.06	1.01	.43	.48	.67
Soft drinks, punches, ades (single strength)-----	1.65	3.20	3.14	4.10	4.84	5.95	4.46	1.46	5.07	3.83	1.28

<sup>1</sup>Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 30 percent of the edible parts of food above quantities needed to meet kcal needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

<sup>2</sup>See table 5 for foods in food groups.

<sup>3</sup>Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

<sup>4</sup>Quantities in pounds except milk, which is in quarts and eggs, which are by number.

<sup>5</sup>Frozen concentrated juices are included as single-strength juice.

<sup>6</sup>Cereal fortified with iron is recommended.

<sup>7</sup>Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

<sup>8</sup>Count one pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

<sup>9</sup>Small quantities of coffee, tea, and seasonings are not shown. Their cost is a part of the estimated cost for the food plan.



Table 4.--Cost of food at home for a week estimated for food plans at three cost levels,<sup>1</sup>  
January 1981, U.S. average: 1974-75 and 1983 food plans

Sex-age categories	1974-75 Food Plans <sup>2</sup>			1983 Food Plans <sup>3</sup>		
	Low-cost	Moderate- cost	Liberal	Low-cost	Moderate- cost	Liberal
<hr/> -----Dollars----- <hr/>						
<u>HOUSEHOLD<sup>4</sup></u>						
Household of 2:						
Couple, 20-50 years <sup>5</sup> -----	41.80	52.40	62.70	41.80	51.50	63.40
Couple, 51 years and over <sup>5</sup> ---	37.30	46.10	55.00	40.00	49.10	58.30
Household of 4:						
Couple, 20-50 years <sup>5</sup> and children--						
1-2 and 3-5 years-----	58.60	73.00	87.30	59.80	72.90	88.70
6-8 and 9-11 years-----	70.80	88.80	106.10	70.10	87.80	105.30
<u>INDIVIDUALS</u>						
Child:						
1-2 years-----	9.40	11.50	13.70	10.40	12.00	14.30
3-5 years-----	11.20	13.90	16.60	11.40	14.10	16.80
6-8 years-----	14.60	18.30	21.80	15.00	18.90	22.10
9-11 years-----	18.20	22.90	27.30	17.10	22.10	25.60
Male:						
12-14 years-----	19.40	24.30	29.00	19.50	24.50	28.60
15-19 years-----	21.40	26.80	32.10	20.40	25.10	29.10
20-50 years <sup>5</sup> -----	21.00	26.50	31.80	20.20	25.30	30.20
51 years and over <sup>5</sup> -----	18.60	23.00	27.60	19.10	23.40	27.90
Female:						
12-19 years-----	17.30	21.40	25.50	17.00	20.50	24.80
20-50 years <sup>5</sup> -----	17.00	21.10	25.20	17.80	21.50	27.40
51 years and over <sup>5</sup> -----	15.30	18.90	22.40	17.30	21.20	25.10

<sup>1</sup>Assumes that food for all meals and snacks is purchased at the store and prepared at home.

<sup>2</sup>Estimates for each plan were computed from quantities of foods published in Winter 1975 issue of Family Economics Review. The costs of the food plans were first estimated using prices paid in 1965-66 by households from USDA's Household Food Consumption Survey with food costs at three selected levels. USDA updated these survey prices to estimate the costs for the food plans using information from the Bureau of Labor Statistics: "Estimated Retail Food Prices by Cities" from 1965-66 to 1977 and "CPI Detailed Report," tables 3 and 9, after 1977.

<sup>3</sup>Estimates for each plan were computed from quantities of foods shown in tables 1-3. Costs were first estimated by using average prices paid in 1977-78 by households from USDA's Nationwide Food Consumption Survey with food costs at three selected levels. USDA updated these survey prices to estimate the cost for the food plans using information from the Bureau of Labor Statistics: "CPI Detailed Report," table 3. (See page 15 for additional details.)

<sup>4</sup>Costs for "individuals" assume that the individual is in a 4-person household. For individuals in households of other sizes, the following adjustments are suggested: 1-person, add 20 percent; 2-person, add 10 percent; 3-person, add 5 percent; 5- or 6-person, subtract 5 percent; 7-or-more person, subtract 10 percent.

<sup>5</sup>Age categories were slightly different for 1974-75 food plans. (See page 2 for details.)

Table 5.—Food groups for USDA food plans<sup>1</sup>

Food group name	Foods included in the food group
Potatoes	White potatoes, dehydrated potatoes, mixtures mostly potato
High-nutrient vegetables <sup>2</sup>	Asparagus, bean sprouts, broccoli, brussels sprouts, cabbage, carrots, cauliflower, green peppers, leafy greens, okra, pumpkin, sauerkraut, summer and winter squash, sweetpotatoes, tomatoes, turnips; tomato and vegetable juices
Other vegetables	All other vegetables including artichokes, beets, calery, corn, cucumbers, eggplant, lettuce, lima beans, mushrooms, onions, parsnips, peas, radishes, rutabagas, snap beans
Mixtures, mostly vegetable; condiments	Catsup, chili sauce, barbecue sauce; tomato and cucumber pickles and relishes; olives; potato chips, sticks; other mixtures, mostly vegetable
Vitamin-C-rich fruit	Cantaloup, grapefruit, honeydew melon, lemons, limes, mangoes, oranges, persimmons, papayas, strawberries, tangelos, tangerines; citrus and citrus-blend juices
Other fruit	All other fruits including apples, apricots, bananas, berries, cherries, dried fruit, grapes, nectarines, peaches, pears, pineapple, plums, watermelon
Whole-grain/high-fiber breakfast cereals	Oatmeal, bran cereal, wheat germ, shredded wheat, granola type, puffed oats, other breakfast cereals made from whole- or high-fiber grains
Other breakfast cereals	Farina, ready-to-eat cereal other than those made from whole- or high-fiber grains
Whole-grain/high-fiber flour, meal, rice, pasta	Whole wheat, buckwheat, soy, barley, rye, millet, peanut, carob, triticale flours and meal; mixes made from whole-grain/high-fiber flours; whole-ground cornmeal; whole-wheat pasta; popcorn; brown rice; leavenings
Other flour, meal, rice, pasta	White enriched flour, mixes made from white enriched flour, leavenings, degermed cornmeal, white enriched rice, grits, enriched pasta
Whole-grain/high-fiber bread	Whole wheat, pumpernickel, bran, rye, oatmeal, triticale breads, rolls, muffins, pancakes
Other bread	White enriched bread, rolls, muffins, bagels, biscuits, pancakes, waffles; cornbread; tortillas
Bakery products, not bread	Enriched and unenriched cakes, pies, tarts, cobblers, crackers, cookies, pastries, doughnuts, pretzels, corn and wheat snacks
Grain mixtures	Soups, mostly grain; pizza; macaroni salad; egg rolls; Spanish rice; macaroni and cheese; spaghetti with tomato sauce; other pasta mixtures and plate meals
Milk, yogurt	Whole milk, lowfat milk, skim milk, buttermilk, nonfat dry milk, imitation milk and formulas, evaporated milk, yogurt, chocolate milk, cocoa with nonfat dry milk
Cheese	Cheddar, Swiss, cottage, other cheeses, imitation cheese, cheese dips, cheese fondue

Table 5.--Food groups for USDA food plans<sup>1</sup>--Continued

Food group name	Foods included in the food group
Cream, mixtures mostly milk	Cream, half and half, sour cream, eggnog, nondairy creamers, puddings, ice cream, ice milk, milkshakes, other frozen desserts, sweetened liquid meal supplements, milk-based soups
Lower-cost red meats, variety meats <sup>3</sup>	Ground beef and pork, beef chuck roast and steak; fresh and cured pork shoulder and Boston butt; beef and lamb stew meat; canned corned beef, roast beef; chipped beef; organ meats such as liver, heart, kidney
Higher-cost red meats, variety meats <sup>3</sup>	Most beef and veal steaks and roasts; cured ham, boiled ham, spareribs, pork loin roast, pork chops; lamb chops, steaks, roasts; variety meats such as brains, tongue, chitterlings
Poultry	Raw and processed chicken, turkey, and other poultry
Fish, shellfish	Raw and processed cod, perch, haddock, sole, and other fish; breaded fish portions and sticks; canned tuna, sardines, and other fish; raw and processed crab, lobster, clams, shrimp, and other shellfish
Bacon, sausage, luncheon meats	Bacon, salt pork, sausage; frankfurters, bologna, salami, liverwurst, other luncheon meats; fatback and other fatty meats; bacon and sausage substitutes
Eggs	Eggs, egg substitutes
Dry beans, peas, lentils	Dry beans of all kinds; dry peas; lentils; soybeans and soya products
Mixtures, mostly meat, poultry, fish, egg, legume	Soups and mixtures, mostly meat, poultry, fish, egg, or legume (plate dinners, entrees such as hamburgers, corned beef hash, chili con carne, chicken and tuna salad, pot pies, fish cakes, egg foo yung, beans and franks, etc.)
Nuts, peanut butter	Peanuts, tree nuts, peanut butter and other nut butters, seeds
Fats, oils	Butter, margarine, hydrogenated vegetable fat, lard, cooking oil, salad dressings
Sugar, sweets	Sugar, granulated, powdered, brown, maple; molasses; sirup; honey; jams; jellies; preserves; powdered dessert mixes and prepared desserts; candy; fruit ices; chocolate sirup and topping; sugar substitutes
Seasonings	Salt, seasonings, vinegar, extracts, spices, plain cocoa, baking chocolate
Soft drinks, punches, ades	Soft drinks, regular and diet; fruit ades, punches, drinks, nectars
Coffee, tea	Coffee, tea

<sup>1</sup>Cost, nutrient composition, and use in meals were considered in grouping foods.

<sup>2</sup>Systematically selected for their relatively high nutrient-to-calorie ratios and content per serving of vitamin A, vitamin B<sub>6</sub>, ascorbic acid, iron, and magnesium.

<sup>3</sup>Selected by their relative costs per unit of protein.

Table 6.--Nutritive value<sup>1</sup> of food in consumption patterns<sup>2</sup> for low-cost food plan

Food component	Child				Male				Female		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
<hr/> <b>Percentage of Recommended Dietary Allowance (1980)<sup>3</sup></b> <hr/>											
Protein	212	198	228	214	211	190	185	161	166	170	147
Vitamin A value	165	160	165	147	131	134	142	141	130	149	156
Thiamin	140	143	136	140	133	138	121	139	125	126	124
Riboflavin	189	187	184	176	170	163	143	154	153	143	135
Niacin equivalent	236	255	242	235	241	266	266	275	246	275	250
Vitamin B <sub>6</sub> <sup>4</sup>	116	99	108	106	112	104	89	87	77	75	73
Vitamin B <sub>12</sub> <sup>4</sup>	157	150	162	168	195	217	198	168	151	142	118
Folacin <sup>4</sup>	185	126	108	91	84	85	80	81	64*	66*	67*
Ascorbic acid	149	156	211	225	227	202	185	177	172	174	171
Vitamin E <sup>4</sup>	92	108	121	136	139	116	150	134	119	150	135
Calcium	97*	99*	130	120	104	113	123	105	77*	93*	83*
Iron	60*	90*	143	124	100	108	177	175	75*	75*	131
Magnesium <sup>4</sup>	130	114	121	112	107	98*	108	102	97*	99*	95*
Phosphorus	122	133	174	163	145	164	212	187	113	158	140
Zinc <sup>4</sup>	66*	77*	102	96	89	100	96	85	70*	70*	61*
<hr/> <b>Composition of diet</b> <hr/>											
Food energy (kcal)	1300	1600	2100	2400	2700	2800	2700	2400	2100	2000	1800
Cholesterol <sup>4</sup> (mg)	218	250	281	319	392*	445*	518*	428*	307	354*	288
Sodium <sup>5</sup> (mg)	2290*	2818*	3700*	4257*	4883*	5379*	5313*	4548*	3906*	3854*	3306*
<hr/> <b>Percentage of energy</b> <hr/>											
Total fat	36*	38*	37*	37*	38*	40*	44*	41*	39*	43*	40*
Caloric sweeteners <sup>5</sup>	15*	18*	18*	20*	19*	16*	14*	14*	18*	15*	15*
Protein	15	14	14	14	14	15	15	15	15	15	14

<sup>1</sup>Nutritive value of the edible portion of food as purchased, adjusted to allow for losses in cooking for vitamins, except folacin. One-half of the drippings and trimmable fat from meat, poultry, and fish was assumed as discard.

<sup>2</sup>Estimated quantities of food used (as purchased) to prepare meals and snacks for individuals. Based on data from housekeeping households, Nationwide Food Consumption Survey, basic sample, year 1977-78 with sample divided into subsamples according to money value of food at home per 21-meal-equivalent person per week as follows: \$13.00-\$16.99, low-cost plan; \$17.00-\$20.99, moderate-cost plan; and \$21.00 or more, liberal plan. Quantities were adjusted proportionately to provide the Recommended Dietary Allowance (RDA) (1980) midpoint for food energy.

<sup>3</sup>RDA derived for specified sex-age categories by interpolation.

<sup>4</sup>Based on limited food composition data.

<sup>5</sup>Based on limited food composition data. Content of patterns may be unrealistically high because quantities of baking soda, salt, and other seasonings are based on reported purchases; some of these items may have been purchased for non-food uses (e.g., baking soda used as a refrigerator deodorizer).

\*NOTE: Failed to meet food plan dietary standard (i.e., RDA or more for protein and vitamins and minerals with these exceptions--80 percent RDA or more for folacin, vitamin E, and zinc; 90 percent RDA for iron for child 1-2 years old; 0.02 mg of vitamin B<sub>6</sub> per gram of protein; and no more than 35 percent of energy from fat, 12 percent of energy from caloric sweeteners, 350 mg of cholesterol, and 1,600 mg sodium/1,000 kcal).

Table 7.--Nutritive value<sup>1</sup> of food in consumption patterns<sup>2</sup> for moderate-cost food plan

Food component	Child				Male				Female		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
<b>Percentage of Recommended Dietary Allowance (1980)<sup>3</sup></b>											
Protein	204	199	231	227	219	189	186	164	168	173	152
Vitamin A value	165	185	166	164	130	137	143	142	133	153	161
Thiamin	136	140	138	143	134	132	121	135	125	126	123
Riboflavin	183	186	186	181	177	163	143	151	155	142	133
Niacin equivalent	230	252	244	250	250	260	270	278	249	279	255
Vitamin B <sub>6</sub> <sup>4</sup>	112	100	109	113	115	103	89	87	78	76	74
Vitamin B <sub>12</sub> <sup>4</sup>	148	152	166	183	210	227	202	179	158	145	124
Folacin <sup>4</sup>	177	128	111	97	84	83	79*	81	64*	66*	69*
Ascorbic acid	147	178	229	248	219	195	190	178	170	181	185
Vitamin E <sup>4</sup>	91	113	120	145	139	125	147	142	121	154	142
Calcium	91*	101	130	121	109	113	121	105	78*	93*	84*
Iron	58*	88*	142	126	99*	105	177	173	75*	75*	132
Magnesium <sup>4</sup>	128	112	122	118	110	94*	108	102	97*	99*	98*
Phosphorus	116	133	175	168	151	162	211	189	114	159	143
Zinc <sup>4</sup>	64*	77*	104	103	93	99	98	87	72*	71*	63*
<b>Composition of diet</b>											
Food energy (kcal)	1300	1600	2100	2400	2700	2800	2700	2400	2100	2000	1800
Cholesterol <sup>4</sup> (mg)	210	251	280	337	375*	476*	491*	470*	296	358*	315
Sodium <sup>5</sup> (mg)	2182*	2750*	3742*	4434*	4910*	5455*	5288*	4512*	4002*	3780*	3333*
<b>Percentage of energy</b>											
Total fat	36*	38*	38*	38*	39*	42*	44*	43*	40*	43*	40*
Caloric sweeteners <sup>4</sup>	16*	18*	18*	18*	18*	16*	15*	13*	17*	14*	13*
Protein	14	14	14	14	15	15	15	15	15	15	15

<sup>1</sup>Nutritive value of the edible portion of food as purchased, adjusted to allow for losses in cooking for vitamins, except folacin. One-half of the drippings and trimmable fat from meat, poultry, and fish was assumed as discard.

<sup>2</sup>Estimated quantities of food used (as purchased) to prepare meals and snacks for individuals. Based on data from housekeeping households, Nationwide Food Consumption Survey, basic sample, year 1977-78 with sample divided into subsamples according to money value of food at home per 21-meal-equivalent person per week as follows: \$13.00-\$16.99, low-cost plan; \$17.00-\$20.99, moderate-cost plan; and \$21.00 or more, liberal plan. Quantities were adjusted proportionately to provide the Recommended Dietary Allowance (RDA) (1980) midpoint for food energy.

<sup>3</sup>RDA derived for specified sex-age categories by interpolation.

<sup>4</sup>Based on limited food composition data.

<sup>5</sup>Based on limited food composition data. Content of patterns may be unrealistically high because quantities of baking soda, salt, and other seasonings are based on reported purchases; some of these items may have been purchased for non-food uses (e.g., baking soda used as a refrigerator deodorizer).

\*NOTE: Failed to meet food plan dietary standard (i.e., RDA or more for protein and vitamins and minerals with these exceptions--80 percent RDA or more for folacin, vitamin E, and zinc; 90 percent RDA for iron for child 1-2 years old; 0.02 mg of vitamin B<sub>6</sub> per gram of protein; and no more than 35 percent of energy from fat, 12 percent of energy from caloric sweeteners, 350 mg of cholesterol, and 1,600 mg sodium/1,000 kcal).

Table 8.--Nutritive value<sup>1</sup> of food in consumption patterns<sup>2</sup> for liberal food plan

Food component	Child				Male				Female		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
<hr/> <u>Percentage of Recommended Dietary Allowance (1980)<sup>3</sup></u> <hr/>											
Protein	209	206	239	230	211	190	194	165	165	173	155
Vitamin A value	173	169	168	148	131	135	152	142	133	156	154
Thiamin	142	147	138	142	134	133	121	127	122	120	120
Riboflavin	193	188	186	175	172	161	146	144	150	137	133
Niacin equivalent	240	265	249	249	241	264	278	277	244	279	263
Vitamin B <sub>6</sub> <sup>4</sup>	124	105	108	110	112	105	93	84	77	74	76
Vitamin B <sub>12</sub> <sup>4</sup>	168	156	170	182	203	228	227	188	166	156	134
Folacin <sup>4</sup>	189	132	109	95	88	87	84	79*	63*	65*	69*
Ascorbic acid	148	181	212	249	235	208	204	186	171	182	182
Vitamin E <sup>4</sup>	95	105	123	136	146	123	160	147	129	167	144
Calcium	94*	98*	133	118	106	109	123	100	75*	88*	81*
Iron	61*	92*	143	126	100	107	180	165	74*	73*	131
Magnesium <sup>4</sup>	134	119	125	116	111	99*	110	102	95*	99*	100
Phosphorus	119	135	181	168	146	162	217	184	111	155	143
Zinc <sup>4</sup>	68*	81	108	103	91	102	104	89	73*	72*	65*
<hr/> <u>Composition of diet</u> <hr/>											
Food energy (kcal)	1300	1600	2100	2400	2700	2800	2700	2400	2100	2000	1800
Cholesterol <sup>4</sup> (mg)	203	232	277	354*	372*	483*	525*	457*	312	361*	300
Sodium <sup>5</sup> (mg)	2267*	2954*	3790*	4392*	5276*	5590*	5581*	4590*	4046*	3870*	3340*
<hr/> <u>Percentage of energy</u> <hr/>											
Total fat	34	36*	38*	37*	39*	41*	45*	44*	41*	44*	40*
Caloric sweeteners <sup>4</sup>	16*	17*	16*	18*	19*	17*	13*	14*	18*	14*	15*
Protein	15	14	15	15	14	15	16	15	14	15	15

<sup>1</sup>Nutritive value of the edible portion of food as purchased, adjusted to allow for losses in cooking for vitamins, except folacin. One-half of the drippings and trimmable fat from meat, poultry, and fish was assumed as discard.

<sup>2</sup>Estimated quantities of food used (as purchased) to prepare meals and snacks for individuals. Based on data from housekeeping households, Nationwide Food Consumption Survey, basic sample, year 1977-78 with sample divided into subsamples according to money value of food at home per 21-meal-equivalent person per week as follows: \$13.00-\$16.99, low-cost plan; \$17.00-\$20.99, moderate-cost plan; and \$21.00 or more, liberal plan. Quantities were adjusted proportionately to provide the Recommended Dietary Allowance (RDA) (1980) midpoint for food energy.

<sup>3</sup>RDA derived for specified sex-age categories by interpolation.

<sup>4</sup>Based on limited food composition data.

<sup>5</sup>Based on limited food composition data. Content of patterns may be unrealistically high because quantities of baking soda, salt, and other seasonings are based on reported purchases; some of these items may have been purchased for non-food uses (e.g., baking soda used as a refrigerator deodorizer).

\*NOTE: Failed to meet food plan dietary standard (i.e., RDA or more for protein and vitamins and minerals with these exceptions--80 percent RDA or more for folacin, vitamin E, and zinc; 90 percent RDA for iron for child 1-2 years old; 0.02 mg of vitamin B<sub>6</sub> per gram of protein; and no more than 35 percent of energy from fat, 12 percent of energy from caloric sweeteners, 350 mg of cholesterol, and 1,600 mg sodium/1,000 kcal).

Table 9.--Low-cost food plan, 1983: A day's food as served

Food <sup>1</sup>	Unit	Child				Male				Female			
		1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more	
----- Number of units per day -----													
Vegetables, fruit	1/2 c	2.8	2.7	3.9	4.3	4.5	4.5	5.3	5.5	4.1	4.8	5.1	
Cereal, pasta, dry	1 oz <sup>2</sup>	2.3	1.8	2.2	2.5	2.7	2.3	1.8	2.1	2.2	1.8	1.8	
Bread <sup>3</sup>	1 slice	2.9	3.6	4.8	5.5	6.4	7.5	8.0	6.3	5.0	5.2	4.0	
Bakery products	1 slice	0.4	1.0	1.6	1.9	2.3	2.1	2.2	1.8	1.2	1.2	0.6	
Milk, yogurt	1 c	1.7	1.6	2.1	2.3	2.5	2.4	1.2	1.0	2.3	0.9	1.0	
Cheese (per week)	1 oz	2.5	2.5	2.8	2.7	3.2	4.4	5.3	4.1	4.9	5.0	5.0	
Meat, poultry, fish, boned <sup>4</sup>	1 oz	2.0	2.1	2.8	3.1	4.0	4.3	4.8	4.8	3.6	4.8	4.9	
Eggs (per week)	no.	3.0	2.9	2.3	2.7	2.7	2.7	3.1	3.6	3.5	3.8	3.7	
Dry beans, peas, cooked; nuts	1/2 c	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.5	0.2	
Fats, oils	1 tbsp	0.3	1.0	1.7	2.0	2.2	2.1	2.7	2.1	0.9	1.2	1.0	
Sugar, sweets	1 tbsp	0.3	2.0	2.4	2.6	3.2	3.1	3.6	4.2	1.4	1.0	2.0	
Soft drinks, punches, ades	1 c	0.4	0.5	0.7	0.8	0.8	1.1	0.9	0.3	0.9	0.8	0.2	

<sup>1</sup>Excludes commercially prepared mixtures except bread and bakery products.

<sup>2</sup>1 oz of dry cereal or pasta is about 1 serving.

<sup>3</sup>Bread is commercially prepared bread and bread assumed to be made at home from flour and meal and some milk, fat, and sugar. Milk, fat, and sugar in excess of amount required to make bread are included in their respective groups.

<sup>4</sup>Lean parts of meat and poultry. Includes some bacon, sausage, and luncheon meats.

Table 10.--Moderate-cost food plan, 1983: A day's food as served

Food <sup>1</sup>	Unit	Child				Male				Female			
		1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more	
		Number of units per day											
Vegetables, fruit	1/2 c	2.9	3.2	4.1	4.9	4.7	5.2	5.5	6.0	4.2	5.4	5.8	
Cereal, pasta, dry	1 oz <sup>2</sup>	2.5	1.6	2.1	2.4	2.6	2.4	2.0	2.0	2.3	1.7	1.5	
Bread	1 slice	2.6	3.5	4.2	4.8	5.8	7.1	7.7	6.1	4.6	5.1	3.9	
Bakery products	1 slice	0.6	1.2	1.7	1.5	1.8	1.9	2.2	1.9	1.4	1.3	0.8	
Milk, yogurt	1 c	1.7	1.6	2.2	2.4	2.8	2.5	1.1	0.8	2.4	0.8	1.0	
Cheese (per week)	1 oz	2.5	2.5	3.9	2.8	3.5	6.1	5.2	5.3	5.1	5.9	5.4	
Meat, poultry, fish, boned <sup>4</sup>	1 oz	2.0	2.6	3.7	4.4	4.9	4.8	5.5	5.1	4.1	5.0	5.2	
Eggs (per week)	no.	3.0	2.8	2.1	2.6	2.0	2.3	2.6	3.2	2.7	3.6	3.4	
Dry beans, peas, cooked; nuts	1/2 c	0.1	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.2	
Fats, oils	1 tbsp	0.3	1.1	1.1	1.7	1.9	2.1	2.3	2.3	1.0	1.3	1.0	
Sugar, sweets	1 tbsp	0.5	2.0	2.5	2.8	3.3	3.4	3.9	4.4	1.3	1.6	2.0	
Soft drinks, punches, ades	1 c	0.3	0.5	0.6	0.8	0.9	1.1	0.8	0.2	0.9	0.8	0.3	

<sup>1</sup>Excludes commercially prepared mixtures except bread and bakery products.<sup>2</sup>1 oz of dry cereal or pasta is about 1 serving.<sup>3</sup>Bread is commercially prepared bread and bread assumed to be made at home from flour and meal and some milk, fat, and sugar. Milk, fat, and sugar in excess of amount required to make bread are included in their respective groups.<sup>4</sup>Lean parts of meat and poultry. Includes some bacon, sausage, and luncheon meats.



Table 11.--Liberal food plan, 1983: A day's food as served

Food <sup>1</sup>	Unit	Child				Male				Female		
		1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
		Number of units per day										
Vegetables, fruit	1/2 c	3.3	3.1	3.9	4.8	4.7	5.2	6.1	6.1	4.3	6.3	5.7
Cereal, pasta, dry	1 oz <sup>2</sup>	2.6	1.7	2.2	2.5	2.9	2.9	2.3	2.0	2.4	1.7	1.4
Bread	1 slice	2.2	3.0	3.9	4.8	5.5	6.4	7.1	5.8	4.1	4.5	3.2
Bakery products	1 slice	0.7	1.3	1.7	1.4	1.9	2.0	1.9	2.0	1.2	1.2	0.9
Milk, yogurt	1 c	1.8	1.5	2.1	2.2	2.6	2.2	1.0	0.7	2.3	0.8	1.0
Cheese (per week)	1 oz	2.8	3.0	5.1	4.7	4.2	6.2	5.5	5.0	5.2	5.6	5.5
Meat, poultry, fish, boned <sup>4</sup>	1 oz	2.0	2.8	3.7	4.5	4.9	4.9	5.5	5.3	4.2	5.7	5.2
Eggs (per week)	no.	2.7	2.1	1.9	2.9	2.2	2.4	2.7	3.0	3.0	3.0	3.3
Dry beans, peas, cooked; nuts	1/2 c	0.1	0.2	0.3	0.3	0.4	0.3	0.4	0.2	0.3	0.3	0.2
Fats, oils	1 tbap	0.3	0.8	1.1	1.6	1.9	2.2	2.8	2.3	1.1	1.4	1.0
Sugar, sweets	1 tbap	0.6	1.7	2.9	3.4	3.5	3.6	4.4	4.6	1.3	1.6	3.0
Soft drinks, punches, ades	1 c	0.3	0.6	0.6	0.8	1.0	1.2	0.9	0.3	1.0	0.8	0.3

<sup>1</sup>Excludes commercially prepared mixtures except bread and bakery products.

<sup>2</sup>1 oz of dry cereal or pasta is about 1 serving.

<sup>3</sup>Bread is commercially prepared bread and bread assumed to be made at home from flour and meal and some milk, fat, and sugar. Milk, fat, and sugar in excess of amount required to make bread are included in their respective groups.

<sup>4</sup>Lean parts of meat and poultry. Includes some bacon, sausage, and luncheon meats.

